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(FILE 'HOME' ENTERED AT 21:50:18 ON 17 JUL 2003)

FILE 'REGISTRY' ENTERED AT 21:50:28 ON 17 JUL 2003

L1               STRUCTURE UPLOADED

L2               0 S L1

L3               2 S L1 FULL

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=> d all 1-

YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L3 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2003 ACS

RN 350583-56-1 REGISTRY

CN 1-Piperazineacetic acid,

4-[2-[bis(4-fluorophenyl)methoxy]ethyl]-.alpha.-(2-phenylethenyl)- (9CI) (CA  
INDEX NAME)

FS 3D CONCORD

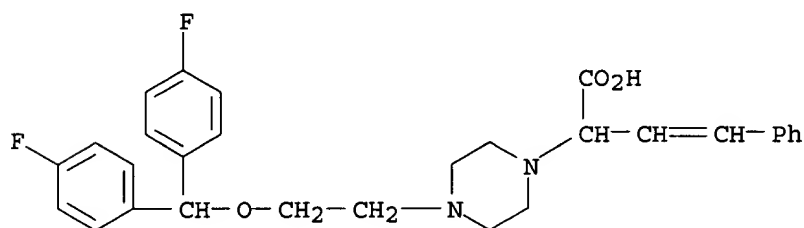
MF C29 H30 F2 N2 O3

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

# Ring System Data

| Elemental<br>Analysis<br>EA | Elemental<br>Sequence<br>ES | Size of<br>the Rings<br>SZ | Ring System<br>Formula<br>RF | Ring<br>Identifier<br>RID | RID<br>Occurrence<br>Count |
|-----------------------------|-----------------------------|----------------------------|------------------------------|---------------------------|----------------------------|
| C6                          | C6                          | 6                          | C6                           | 46.150.18                 | 3                          |
| C4N2                        | NC2NC2                      | 6                          | C4N2                         | 46.383.1                  | 1                          |



# Calculated Properties (CALC)

| PROPERTY (CODE)         | VALUE              | CONDITION  | NOTE    |
|-------------------------|--------------------|------------|---------|
| Bioconc. Factor (BCF)   | 18.0               | pH 1       | (1) ACD |
| Bioconc. Factor (BCF)   | 137                | pH 4       | (1) ACD |
| Bioconc. Factor (BCF)   | 160                | pH 7       | (1) ACD |
| Bioconc. Factor (BCF)   | 125                | pH 8       | (1) ACD |
| Bioconc. Factor (BCF)   | 8.85               | pH 10      | (1) ACD |
| Boiling Point (BP)      | 623.1+/-55.0 deg C | 760.0 Torr | (1) ACD |
| Enthalpy of Vap. (HVAP) | 97.02+/-3.0 kJ/mol |            | (1) ACD |
| Flash Point (FP)        | 330.6+/-56.7 deg C |            | (1) ACD |
| H acceptors (HAC)       | 5                  |            | (1) ACD |
| H donors (HD)           | 1                  |            | (1) ACD |
| Koc (KOC)               | 28.6               | pH 1       | (1) ACD |
| Koc (KOC)               | 218                | pH 4       | (1) ACD |
| Koc (KOC)               | 255                | pH 7       | (1) ACD |
| Koc (KOC)               | 200                | pH 8       | (1) ACD |
| Koc (KOC)               | 14.1               | pH 10      | (1) ACD |
| logD (LOGD)             | 3.05               | pH 1       | (1) ACD |
| logD (LOGD)             | 3.93               | pH 4       | (1) ACD |
| logD (LOGD)             | 4.00               | pH 7       | (1) ACD |
| logD (LOGD)             | 3.89               | pH 8       | (1) ACD |
| logD (LOGD)             | 2.74               | pH 10      | (1) ACD |
| logP (LOGP)             | 6.503+/-0.668      |            | (1) ACD |

|                            |               |             |         |
|----------------------------|---------------|-------------|---------|
| Molar Solubility (SLB.MOL) | <0.01 mol/L   | pH 1        | (1) ACD |
| Molar Solubility (SLB.MOL) | <0.01 mol/L   | pH 4        | (1) ACD |
| Molar Solubility (SLB.MOL) | <0.01 mol/L   | pH 7        | (1) ACD |
| Molar Solubility (SLB.MOL) | <0.01 mol/L   | pH 8        | (1) ACD |
| Molar Solubility (SLB.MOL) | <0.01 mol/L   | pH 10       | (1) ACD |
| Molecular Weight (MW)      | 492.56        |             | (1) ACD |
| pKa (PKA)                  | 3.93+/-0.10   | Most Acidic | (1) ACD |
| pKa (PKA)                  | 8.47+/-0.50   | Most Basic  | (1) ACD |
| Vapor Pressure (VP)        | 2.19E-16 Torr | 25.0 deg C  | (1) ACD |

(1) Calculated using Advanced Chemistry Development (ACD) Software Solaris V4.67  
((C) 1994-2003 ACD)

1 REFERENCES IN FILE CA (1957 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

#### REFERENCE 1

AN 135:107255 CA  
 TI Preparation of polypharmacophoric agents  
 IN Hanson, Robert N.; Babich, John W.  
 PA Biostream Therapeutics, Inc., USA  
 SO PCT Int. Appl., 74 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C07D241-04  
 ICS C07D211-34; C07D211-44; C07D223-26  
 CC 27-16 (Heterocyclic Compounds (One Hetero Atom))  
 Section cross-reference(s): 1  
 FAN.CNT 1

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| WO 2001051474 | A2   | 20010719 | WO 2001-US1035  | 20010111 |
| WO 2001051474 | A3   | 20011206 |                 |          |

W: CA, JP  
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,  
 SE, TR  
 US 2002042357 A1 20020411 US 2001-758957 20010111  
 EP 1257541 A2 20021120 EP 2001-902026 20010111  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE,  
 FI, CY, TR  
 JP 2003519689 T2 20030624 JP 2001-551856 20010111  
 PRAI US 2000-175617P 20000111  
 WO 2001-US1035 20010111  
 AB Title compds. (I) comprise a scaffold bearing .gtoreq.2 pharmacophore units  
 selected from D1, D2, D3,  
 and D4 agonists, (ir)reversible monoamine inhibitors, monoamine transporter  
 inhibitors, COMT inhibitors,  
 MAO inhibitors, and dopamine transporter inhibitors. I interact with  
 .gtoreq.2 biol. targets. Thus,  
 (E)-PhZCH(CO2H)CH:CHPh (Z = piperidine-4,1-diyl) was prepd. Data for biol.  
 activity of I were given.  
 ST polypharmacophoric agent prepn; dopaminergic system agent prepn  
 IT Dopamine agonists  
 (D1; prepn. of polypharmacophoric agents)  
 IT Dopamine agonists  
 (D2; prepn. of polypharmacophoric agents)  
 IT Dopamine agonists  
 (D3; prepn. of polypharmacophoric agents)  
 IT Nervous system  
 (Huntington's chorea, treatment; prepn. of polypharmacophoric agents)  
 IT Mental disorder  
 (attention deficit disorder, treatment; prepn. of polypharmacophoric agents)

IT Mental disorder  
 (autism, treatment; prepn. of polypharmacophoric agents)

IT Transport proteins  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC  
 (Process)  
 (dopamine-transporting, inhibitors; prepn. of polypharmacophoric agents)

IT Nervous system  
 (dopaminergic; prepn. of polypharmacophoric agents)

IT Monoamines  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC  
 (Process)  
 (inhibitors; prepn. of polypharmacophoric agents)

IT Transport proteins  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC  
 (Process)  
 (monoamine-transporting, inhibitors; prepn. of polypharmacophoric agents)

IT Anti-inflammatory agents  
 Antidepressants  
 Antiobesity agents  
 Pharmacophores  
 (prepn. of polypharmacophoric agents)

IT Alzheimer's disease  
 (treatment; prepn. of polypharmacophoric agents)

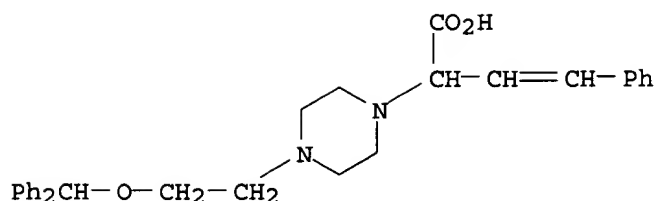
IT 9001-66-5, monoamine oxidase 9012-25-3, Catechol O-methyl transferase  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC  
 (Process)  
 (inhibitors; prepn. of polypharmacophoric agents)

IT 67469-69-6P 350583-53-8P 350583-56-1P 350583-58-3P 350583-59-4P  
 350583-60-7P 350583-61-8P  
 350583-62-9P 350583-63-0P 350583-64-1P 350583-65-2P 350583-66-3P  
 350583-67-4P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); SPN  
 (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (prepn. of polypharmacophoric agents)

L3 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2003 ACS  
 RN 350583-53-8 REGISTRY  
 CN 1-Piperazineacetic acid,  
 4-[2-(diphenylmethoxy)ethyl]-.alpha.-(2-phenylethenyl)- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C29 H32 N2 O3  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

#### Ring System Data

| Elemental<br>Analysis<br>EA | Elemental<br>Sequence<br>ES | Size of<br>the Rings<br>SZ | Ring System<br>Formula<br>RF | Ring<br>Identifier<br>RID | RID<br>Occurrence<br>Count |
|-----------------------------|-----------------------------|----------------------------|------------------------------|---------------------------|----------------------------|
| C6                          | C6                          | 6                          | C6                           | 46.150.18                 | 3                          |
| C4N2                        | NC2NC2                      | 6                          | C4N2                         | 46.383.1                  | 1                          |



# Calculated Properties (CALC)

| PROPERTY (CODE)            | VALUE              | CONDITION   | NOTE    |
|----------------------------|--------------------|-------------|---------|
| Bioconc. Factor (BCF)      | 14.9               | pH 1        | (1) ACD |
| Bioconc. Factor (BCF)      | 112                | pH 4        | (1) ACD |
| Bioconc. Factor (BCF)      | 134                | pH 7        | (1) ACD |
| Bioconc. Factor (BCF)      | 105                | pH 8        | (1) ACD |
| Bioconc. Factor (BCF)      | 7.50               | pH 10       | (1) ACD |
| Boiling Point (BP)         | 621.5+/-55.0 deg C | 760.0 Torr  | (1) ACD |
| Enthalpy of Vap. (HVAP)    | 96.80+/-3.0 kJ/mol |             | (1) ACD |
| Flash Point (FP)           | 329.6+/-56.7 deg C |             | (1) ACD |
| H acceptors (HAC)          | 5                  |             | (1) ACD |
| H donors (HD)              | 1                  |             | (1) ACD |
| Koc (KOC)                  | 24.9               | pH 1        | (1) ACD |
| Koc (KOC)                  | 188                | pH 4        | (1) ACD |
| Koc (KOC)                  | 224                | pH 7        | (1) ACD |
| Koc (KOC)                  | 177                | pH 8        | (1) ACD |
| Koc (KOC)                  | 12.6               | pH 10       | (1) ACD |
| logD (LOGD)                | 2.94               | pH 1        | (1) ACD |
| logD (LOGD)                | 3.82               | pH 4        | (1) ACD |
| logD (LOGD)                | 3.89               | pH 7        | (1) ACD |
| logD (LOGD)                | 3.79               | pH 8        | (1) ACD |
| logD (LOGD)                | 2.64               | pH 10       | (1) ACD |
| logP (LOGP)                | 6.400+/-0.547      |             | (1) ACD |
| Molar Solubility (SLB.MOL) | <0.01 mol/L        | pH 1        | (1) ACD |
| Molar Solubility (SLB.MOL) | <0.01 mol/L        | pH 4        | (1) ACD |
| Molar Solubility (SLB.MOL) | <0.01 mol/L        | pH 7        | (1) ACD |
| Molar Solubility (SLB.MOL) | <0.01 mol/L        | pH 8        | (1) ACD |
| Molar Solubility (SLB.MOL) | <0.01 mol/L        | pH 10       | (1) ACD |
| Molecular Weight (MW)      | 456.58             |             | (1) ACD |
| pKa (PKA)                  | 3.93+/-0.10        | Most Acidic | (1) ACD |
| pKa (PKA)                  | 8.48+/-0.50        | Most Basic  | (1) ACD |
| Vapor Pressure (VP)        | 2.64E-16 Torr      | 25.0 deg C  | (1) ACD |

(1) Calculated using Advanced Chemistry Development (ACD) Software Solaris V4.67  
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ICS C07D211-34; C07D211-44; C07D223-26  
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))  
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|            | PATENT NO.                                                              | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|-------------------------------------------------------------------------|------|----------|-----------------|----------|
| PI         | WO 2001051474                                                           | A2   | 20010719 | WO 2001-US1035  | 20010111 |
|            | WO 2001051474                                                           | A3   | 20011206 |                 |          |
|            | W: CA, JP                                                               |      |          |                 |          |
|            | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, |      |          |                 |          |
| SE, TR     | US 2002042357                                                           | A1   | 20020411 | US 2001-758957  | 20010111 |
|            | EP 1257541                                                              | A2   | 20021120 | EP 2001-902026  | 20010111 |
|            | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE,  |      |          |                 |          |
| FI, CY, TR | JP 2003519689                                                           | T2   | 20030624 | JP 2001-551856  | 20010111 |

PRAI US 2000-175617P 20000111  
WO 2001-US1035 20010111

AB Title compds. (I) comprise a scaffold bearing .gtoreq.2 pharmacophore units selected from D1, D2, D3, and D4 agonists, (ir)reversible monoamine inhibitors, monoamine transporter inhibitors, COMT inhibitors, MAO inhibitors, and dopamine transporter inhibitors. I interact with .gtoreq.2 biol. targets. Thus, (E)-PhZCH(CO2H)CH:CHPh (Z = piperidine-4,1-diyl) was prepd. Data for biol. activity of I were given.

ST polypharmacophoric agent prepn; dopaminergic system agent prepn

IT Dopamine agonists

(D1; prepn. of polypharmacophoric agents)

IT Dopamine agonists

(D2; prepn. of polypharmacophoric agents)

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(D3; prepn. of polypharmacophoric agents)

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350583-60-7P 350583-61-8P  
350583-62-9P 350583-63-0P 350583-64-1P 350583-65-2P 350583-66-3P  
350583-67-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); SPN

(Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP  
(Preparation); USES (Uses)  
(prepn. of polypharmacophoric agents)